REMARKS

I. Status of the Claims

Claims 1-40 were originally filed and subsequently canceled. Claims 41-48 have been added. Upon entry of the present amendment, claims 42 and 43 are canceled. Claim 41 is amended to recite a "polypeptide comprising an amino acid sequence of SEQ ID NO:5." Claim 47 is amended to recite "an isolated host cell" in place of "a host cell." This amendment is generally supported by the specification as originally filed, *e.g.*, on page 29, line 7, to page 31, line 13, and Example 2 on page 60. No new matter is introduced.

II. Claim Rejections

A. 35 U.S.C. §112, First Paragraph: Enablement

In the Office Action mailed April 20, 2005, claim 48 was rejected under 35 U.S.C. §112, first paragraph, for alleged lack of enablement. Specifically, the Examiner asserted that since a host cell transfected with an expression vector comprising the claimed nucleic acid could be interpreted as a cell in a multicell transgenic organism, and since transgenic organisms are difficult to make, the chance of success is unpredictable, undue experimentation would be required for one to produce a transgenic organism having acquired the claimed nucleic acid, a claim directed to a host cell comprising the claimed gene as a transgene is therefore not enabled. Applicants respectfully traverse the rejection.

First of all, claim 48 has been amended to recite an "isolated" host cell, which does not encompass cells that are a part of a transgenic organism. The Examiner's reasoning for the enablement rejection thus does not apply to the amended claim.

Secondly, even if claim 48 had not been amended and were directed to a host cell transfected with an expression vector comprising the claimed nucleic acid, which encodes for an alpha subunit of a voltage-gated potassium channel, sufficient enablement would still be found because such host cell would have at least one enabled use. The specification teaches various uses of the host cell. For example, on page 42, lines 4-22, the specification teaches the use of a host cell expressing the claimed KCNQ5 alpha subunit of a potassium channel for identification

of a compound capable of modulating ion flux through the potassium channel in an *in vitro* system. On the other hand, in the section beginning on page 50, line 30, the specification teaches the introduction of the claimed nucleic acid into certain cells in living organisms for therapeutic purposes. Thus, the claimed host cells have multiple uses at least some of which (*e.g.*, use of cultured cells expressing a claimed KCNQ5 alpha subunit following a transfection for the purpose of screening for compounds modulating potassium channel activity) are immediately apparent to those skilled in the art. These uses are also fully enabled immediately upon the disclosure of the coding sequences of the claimed KCNQ5 alpha subunit, given the high level of technical sophistication in the relevant art of molecular biology.

MPEP § 2164.01(c) describes the enablement standard for compound and composition claims as follows:

> [W]hen a compound or composition claim is not limited by a recited use, any enabled use that would reasonable correlate with the entire scope of that claim is sufficient to preclude a rejection for nonenablement based on how to use. . . . In other words, if any use is enabled when multiple uses are disclosed, the application is enabling for the claimed invention.

Under this standard, the host cell of claim 48 would be sufficiently enabled even without the present amendment. As such, Applicants respectfully request the withdrawal of the enablement rejection of claim 48.

B. 35 U.S.C. §102

Claims 41-43 and 45-48 were rejected under 35 U.S.C. §102(e) for alleged anticipation by U.S. Patent No. 6,649,371 ("the '371 patent"), which was filed June 9, 2000, and claims priority to provisional application 60/139,891, filed June 22, 1999. Specifically, the Examiner alleged that SEQ ID NO:1 of the '371 patent encodes a polypeptide with a sequence 100% and 99.6% identical to SEQ ID NO:4 and SEQ ID NO:5 of the present application, respectively.

As amended, the pending claims now recite a "polypeptide comprising an amino acid sequence of SEQ ID NO:5." Because the '371 patent does not disclose SEQ ID NO:5, there can be no anticipation. The rejection under 35 U.S.C. §102(e) is thus overcome.

III. Claim Objection

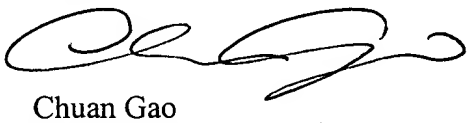
Claim 44 was objected to because it depends from rejected claims. As all outstanding rejections have been properly addressed in light of the claim amendment and above discussion, Applicants submit the objection to claim 44 is now moot.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,



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